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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,044	12/21/2001	Yair Bourlas	ENSEMB.033A	5124

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EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/032,044

Applicant(s)

BOURLAS ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-103 is/are pending in the application.
- 4a) Of the above claim(s) 18-47 and 79-103 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 48-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2, 5</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Claims 18-47 and 79-103 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 12, 2004.

Drawings

1. The drawings are objected to because the following requires descriptive wording (37 CFR 1.83(a)): figure 1, items 102 and 106, and one of item 104; figure 3, items 108, 108(a) and 108(b). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-6, 8-17, 48-61 and 63-78 are rejected under 35 U.S.C. 102(a) as being anticipated by Naghian (WO 00/49824).

2. Regarding claims 1, 3-4, 48, 51, 66-67 and 71-78, Naghian discloses a method for controlling the admission of connections in a wireless communication system (page 5, line 30 through page 6, line 2) between a base station and associated CPEs (page 6, lines 12-15). The method comprises receiving a request for a new connection (page 6, lines 9-10), summing hard bandwidth commitments for the base station including the new connection based on a planned PHY mode (col. 6, lines 13-15; note: power levels of mobile units are estimated though based on current levels -- figure 1, step 110-120), determining an air link line rate between the base station and the CPEs based on a reference PHY mode (step 120; note: first limit), if the air link line rate exceeds the hard bandwidth commitment, accepting the connection (step 125), else denying the connection (step 122 and figure 3, step 175; page 7, lines 29-31). The method further comprises, when a new connection is accepted, determining if the air link line rate exceeds a second hard bandwidth commitment based on a current PHY mode (figure 1, steps 135 and 140), if the air link line rate exceeds the second hard bandwidth commitments, allocating the air link resources (step 130 and step 140, YES; page 6, lines 28-29) and if not, determining if additional resources are available. If additional resources are available, allocating the resources to the new

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connection (page 6, lines 30-34), else suspending one of the existing connections (page 12, lines 12-16) including the requesting CPE (page 12, lines 9-15; figure 1, steps 140 and 145). Further regarding claims 48 and 51, the CPEs and base station have inherent modems.

3. Regarding claims 49-50, the CAC module is at the CPEs and base stations (figures 5-8; note: control signaling for each apparatus and between each apparatus involved with call admission).

4. Regarding claim 52, a signal quality module monitors the signal quality (figure 5, steps 340 and 350) and an inherent control module selects a PHY mode based on the signal quality (page 10, lines 2-5).

5. Regarding claim 2, the air link resources are available bandwidth in uplink and downlink subframes (page 1, lines 11-15 and 22-25).

6. Regarding claim 5, connections are suspended that use a more robust PHY mode than a planned PHY mode (page 15, lines 10-13; page 9, lines 18-23 and page 12, lines 8-10 and 12-16).

7. Regarding claim 6, connections are randomly suspended (page 9, lines 1-6).

8. Regarding claims 8-11, 53, 57-59, 63-65 and 68, suspending of connections is implemented in a round robin fashion (page 9, lines 7-8) or based on assigned priority (page 9, lines 6-8 and page 12, lines 9-16).

9. Regarding claims 12-13 and 54-56, a more or less robust PHY mode is selected as a current PHY mode (page 13, lines 6-9) and a third hard bandwidth commitment is determined (figure 6, steps 420 and 430), and if the air link line rate does not exceed the third hard

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bandwidth commitments, then suspending another connection (page 8, lines 10-13 and page 12, lines 9-16; page 13, lines 6-9), else unsuspending a connection (page 9, lines 9-11).

10. Regarding claims 14-17, 60-61 and 69-70, the hard bandwidth commitments include constant bit rate connections, minimum cell rates, sustainable cell rates, and other QoS parameters include forward error correction (page 1, lines 14-16; page 3, lines 1-4; page 12, lines 5-22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naghian (WO 00/49824) in view of Soliman (US 2002/0061006).

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11. Regarding claims 7 and 62, Naghian discloses a connection admission control for a wireless system (abstract). However, Naghian does not disclose a connection admission control for a sector of a wireless system. Soliman discloses a call admission control for a sector of a wireless system (para. 34, lines 1-2 and 14-16). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to determine call admission within sectors of a wireless system in order to appropriately manage the admission of calls where an efficient use of network spectrum and resources are utilized through sectoring.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Marchok et al. (US 6,141,317) discloses altering a level of QAM encoding based on available bandwidth (abstract, last four lines). Krishnamoorthy et al. (6,636,500) discloses allocating network resources (figure 4, steps 407, 411 and 415) based on a selected modulated scheme. Lu et al. (US 6,519,462) discloses an admission control (abstract, last ten lines) for allocating resources based on adjusting a forward error correction level (figure 2, step 210).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays from 11:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The centralized fax number for the Patent Office is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only (applications must be associated with a customer number). For more information about the PAIR system, see pair.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin C. Harper



June 27, 2004